River and station	Flood stage	Above flood stage—dates		Crest	
		From-	То—	Stage	Date (all dates in April except as otherwise specified)
Pascagoula: Merrill, Miss	Feet -	26	29	Feet 20.7	27
Chickasawhay: Enterprise, Miss. Shubuta, Miss. Leaf: Hattiesburg, Miss.	21 27 19	23 24 24	26 29 25	26. 0 29. 2 20. 3	25 28 24
Edinburg, Miss. Jackson, Miss. Monticello, Miss. Columbia, Miss. West Pearl: Pearl River, La.	21 20 18 18 13	24 11 22 23 11	(1) 28 (1) (1) (1)	23. 3 29. 8 20. 8 22. 9 16. 0	26 30 23 25 28
GREAT LAKES DRAINAGE Saginaw: Saginaw, Mich	19	8	11	20. 0	g
Tittshawasseel Midland, Mich Shields, Mich Pine: Alma, Mich	18 16 7	6 8 4	9 9	20. 0 17. 4 8. 0	8 8 7
Eaton Rapids, MichGrand Rapids, Mich	5 11	3 7	11 10	5. 1 11. 4	
MISSISSIPPI DRAINAGE  Allegheny: Lock 5, Freeport, Pa Stony Creek: Johnstown, Pa Youghlogheny: Confluence, Pa Tuscarawas: Gnadenhutten, Ohio	24 10 10 9	(4) 30 30 (4)	(*) (1) 30 3	13. 0 11. 0 11. 4	30 30 Mar. 31
Walhonding: Walhonding, Ohio Scioto: Larue, Ohio Tippecance: Norway, Ind	8 11 6	23 22 22 2 2 16	24 22 22 2 2 16	9. 6 8. 2 11. 2 6. 0 6. 0	23 22 22 16
White: Decker, Ind	18 19 15	26 23 2 23	29 24 4 26	18.6 19.5 15.7 16.9	25
Tennessee: Florence, Ala	18 33 14	24 23 22	25 27 25	18. 1 37. 8 20. 1	2- 2- 2- 2-
Mississippi: Louisiana, MoHannibal, MoHinois:	ı	14 9	15 16	12. 1 13. 5	11 1-
Morris, III. Peru, III. Henry, III. Havana, III. Beardstown, III. Pearl, III.	13 14 10 14 14 12	9 1 9 10 10	28 23 29 (¹) 27	13. 0 17. 0 11. 2 15. 1 16. 0 13. 3	16-1: 16-1: 16-1: 16-1:
Meramec: Steelville, Mo. Pacific, Mo. Valley Park, Mo. Bourbeuse: Union, Mo. St. Francis: St. Francis, Ark	114	7 6 6 6 9 22	7 9 10 8 19 (¹)	14. 7 20. 0 23. 0 16. 4 21. 3 21. 2	1: 2:
Arkansas: Fort Smith, Ark Dardanelle, Ark Morrilton, Ark Yancopin, Ark Little Arkansas: Sedgwick, Kans. Petit Jean: Danville, Ark	20 20 29 18	23 24 24 28 5 6	25 27 27 (¹) 5	23. 4 21. 5 21. 0 36. 5 18. 0 25. 6	2 2 2 2 3
White: Cotter, Ark	21	22 7 23 6	25 8 25 9	23. 5 22. 8 25. 5 28. 8	2
Batesville, Ark	23	21 6 22	26 10 26	31. 8 32. 6 33. 4	2 2 1
Newport, Ark		23 10 12	(1) (1) (1) (1)	30. 3 32. 0 28. 2 27. 9	28-2 3
Black: Poplar Bluff, Mo  Corning, Ark Block Rock, Ark Cache: Patterson, Ark	14	22	9 25 (1) (1)	16. 6 15. 8 13. 5 24. 9	2 24-2 2
Cache: Patterson, Ark Tallahatchle: Swan Lake, Miss		8 23	(1)	9. 7 9. 6 29. 4	13-1 27-2 Mar. 25-2
Sulphur:		24	(1)	30. 6	May 3
Ringo Crossing, TexFinley, Tex		22	9 25 15 30	25. 8 22. 4 25. 9 24. 0	29-3

Continued at end of month.
Continued from last month.

River and station	Flood stage	Above flood stage—dates		Crest	
		From—	То—	Stage	Date (all dates in April except as otherwise specified)
MISSISSIPPI DRAINAGE—continued					
Ouachita:	Feet	_		Feet	_
Arkadelphia, Ark	12	7 22	8 24	17.3 16.0	8 23
Camden, Ark	30	11	11	30.4	11
WEST GULF DRAINAGE		25	28	32.2	27
Trinity: Dallas, Tex	25	5	7	32. 4	6
PACIFIC DRAINAGE					
Sacramento: Knights Landing, Calif	18	(2)	1	19. 2	Mar. 28-30
Willamette: Harrisburg, Oreg	7	(2)	(4)	(4)	(4)
Portland, Oreg	15	1	<b>4</b>	ì5.5	3

<sup>2</sup> Continued from last month.

## MEAN LAKE LEVELS DURING APRIL, 1928

By United States Lake Survey

[Detroit, Mich., May 4, 1928]

The following data are reported in the Notice to Mariners of the above date:

Data	Lakes 1					
	Superior	Michigan and Huron	Erie	Ontario		
Mean level during April, 1928: Above mean sea level at New York Above or below-	Feet 601. 51	Feet 579. 52	Feet 571. 79	Feet 246. 42		
Mean stage of March, 1928 Mean stage of April, 1927 Average stage for April, last 10	+0.09 +0.41	+0.59 +0.72	+0. 29 +0. 03	+0.45 +0.45		
years	+0.46 -0.88 +1.71	$ \begin{array}{r} -0.12 \\ -3.71 \\ +1.70 \end{array} $	-0, 13 -2, 39 +0, 98	+0.54 -2.01 +1.58		
Average departure (since 1860) of the April level from the March level	+0.06	+0.24	+0. 54	+0.59		

<sup>&</sup>lt;sup>1</sup> Lake St. Clair's level: In April, 1928, 574.18 feet.

## EFFECT OF WEATHER ON CROPS AND FARMING OPERATIONS, APRIL, 1928

By J. B. KINCER

General summary.—During the first decade of April, the unusually warm weather advanced fruit trees rapidly in the interior of the country, and at many places they had reached a stage susceptible to frost when a sudden change to cold weather and freezing in many districts occurred. As a result, more or less general damage was done to early fruit over most central trans-Mississippi sections from southern Iowa and Nebraska southward to the northern portions of Arkansas and Oklahoma, and also in northwest and west Texas and New Mexico, the heaviest damage apparently being in the southwestern portion of this area. Elsewhere there was no widespread harm, although some local frosting was reported. The weather was generally favorable in the more eastern States and field operations made good advance, but in the South work was retarded, and cool weather the latter part prevented good growth of vegetation. It was also too cool, cloudy, and wet in the interior valleys, but the Pacific Coast States had favorable weather, although it was generally too cool in the Rocky Mountain districts.

<sup>&</sup>lt;sup>4</sup> Below flood stage at 8 a. m. Apr. 1.

<sup>4</sup> Report missing.